

IN THE CLAIMS

Please amend Claims 1, 9, 21 and 25, and add Claims 32 and 33, to read as follows.

1. (Currently Amended) A speech signal processing apparatus comprising:
obtaining means for obtaining a plurality of synthesis units based on an input
text;

modifying means for modifying each of the synthesis units according to
prosody information obtained based on the input text;

distortion obtaining means for obtaining a respective modification distortion
for each of ~~[[a]]~~ the plurality of synthesis units, ~~each respective modification distortion being a~~
~~distortion between a~~ based on the respective ~~unmodified individual~~ synthesis unit before
modification and ~~the individual that~~ synthesis unit after modification ~~responsive to prosody of a~~
text;

selection means for selecting synthesis units based on the modification
~~distortion~~ distortions obtained by said distortion obtaining means; and

speech synthesis means for performing speech synthesis based on the synthesis
units selected by said selection means. [[,]]

~~wherein the modification is based on prosody information of an input text~~
segment;

2-5. (Canceled)

6. (Previously Presented) An apparatus according to Claim 1, wherein said distortion obtaining means uses a value obtained by adding the obtained modification distortion and a concatenation distortion generated by concatenating a synthesis unit to another synthesis unit.

7. (Previously Presented) An apparatus according to Claim 1, wherein said distortion obtaining means calculates a weighted sum of the obtained modification distortion and a concatenation distortion generated by concatenating a synthesis unit to another synthesis unit.

8. (Canceled)

9. (Currently Amended) An apparatus according to Claim 1, wherein said distortion obtaining means calculates the modification distortion using a cepstrum distance, spectrum distance or characteristic of the waveform of the synthesis unit.

10. (Previously Presented) An apparatus according to Claim 1, wherein said distortion obtaining means includes a table storing distortions, and determines the modification distortion by referring to the table.

11. (Previously Presented) An apparatus according to Claim 1, wherein said distortion obtaining means includes a table storing concatenation distortions, and determines a concatenation distortion by referring to the table.

12. (Previously Presented) An apparatus according to Claim 1, further comprising:

input means for inputting text data;

language analysis means for performing language analysis of the text data; and

prosody-parameter generation means for generating predetermined prosody

parameters based on a result of analysis of said language analysis means,

wherein said distortion obtaining means obtains the modification distortion based on the predetermined prosody parameters generated by said prosody-parameter generation means.

13. (Currently Amended) A speech signal processing method comprising:

an obtaining step of obtaining a plurality of synthesis units based on an input text;

a modifying step of modifying each of the synthesis units according to prosody information obtained based on the input text;

a distortion obtaining step of obtaining a respective modification distortion for each of ~~[[a]]~~ the plurality of synthesis units, ~~each respective modification distortion being a distortion between a~~ based on the respective ~~unmodified individual~~ synthesis unit before modification and ~~the individual that~~ synthesis unit after modification ~~responsive to prosody of a~~ text;

a selection step of selecting synthesis units based on the modification ~~distortion~~ distortions obtained in said distortion obtaining step; and

a speech synthesis step of performing speech synthesis based on the synthesis units selected in said selection step. [[,]]

~~wherein the modification is based on prosody information of an input text segment.~~

14-17. (Canceled)

18. (Previously Presented) A method according to Claim 13, wherein in said distortion obtaining step, a value is obtained by adding the obtained modification distortion and a concatenation distortion generated by concatenating a synthesis unit to another synthesis unit.

19. (Previously Presented) A method according to Claim 13, wherein in said distortion obtaining step, a weighted sum is calculated of the obtained modification distortion and a concatenation distortion generated by concatenating a synthesis unit to another synthesis unit.

20. (Canceled)

21. (Currently Amended) A method according to Claim 13, wherein in said distortion obtaining step, the modification distortion is calculated using a cepstrum distance, spectrum distance or characteristic of the waveform of the synthesis unit.

22. (Previously Presented) A method according to Claim 13, wherein in said distortion obtaining step, a table storing distortions is provided, and the modification distortion is determined by referring to the table.

23. (Previously Presented) A method according to Claim 13, wherein in said distortion obtaining step, a table storing concatenation distortions is provided, and a concatenation distortion is determined by referring to the table.

24. (Previously Presented) A method according to Claim 13, further comprising:

- an input step of inputting text data;
- a language analysis step of performing language analysis of the text data; and
- a prosody-parameter generation step of generating predetermined prosody parameters based on a result of analysis in said language analysis step,

wherein in said distortion obtaining step, the modification distortion is obtained based on the predetermined prosody parameters generated in said prosody-parameter generation step.

25. (Currently Amended) A storage medium, capable of being read by a computer, storing a program for executing a speech signal processing method, the program comprising code for performing the following steps:

an obtaining step of obtaining a plurality of synthesis units based on an input text;

a modifying step of modifying each of the synthesis units according to prosody information obtained based on the input text;

a distortion obtaining step of obtaining a respective modification distortion for each of ~~[[a]]~~ the plurality of synthesis units, ~~each respective modification distortion being a distortion between a~~ based on the respective ~~unmodified individual~~ synthesis unit before modification and ~~the individual that~~ synthesis unit after modification ~~responsive to prosody of a text;~~

a selection step of selecting synthesis units based on the modification ~~distortion~~ distortions obtained in the distortion obtaining step; and

a speech synthesis step of performing speech synthesis based on the synthesis units selected in the selection step; ~~[[,]]~~

~~wherein the modification is based on prosody information of an input text segment.~~

26. (Previously Presented) A storage medium according to Claim 25, wherein in the distortion obtaining step, a value is obtained by adding the obtained modification distortion and a concatenation distortion generated by concatenating a synthesis unit to another synthesis unit.

27. (Previously Presented) A storage medium according to Claim 25, wherein in the distortion obtaining step, a weighted sum is calculated of the obtained modification distortion and a concatenation distortion generated by concatenating a synthesis unit to another synthesis unit.

28. (Currently Amended) A storage medium according to Claim 25, wherein in the distortion obtaining step, the modification distortion is calculated using a cepstrum distance, spectrum distance or characteristic of the waveform of the synthesis unit.

29. (Previously Presented) A storage medium according to Claim 25, wherein in the distortion obtaining step, a table storing distortions is provided, and the modification distortion is determined by referring to the table.

30. (Previously Presented) A storage medium according to Claim 25, wherein in the distortion obtaining step, a table storing concatenation distortions is provided, and a concatenation distortion is determined by referring to the table.

31. (Previously Presented) A storage medium according to Claim 25, wherein the program for executing the speech signal processing method further comprises:

program code for performing an input step of inputting text data;

program code for performing a language analysis step of performing language analysis of the text data; and

program code for performing a prosody-parameter generation step of generating predetermined prosody parameters based on a result of analysis in the language analysis step,

wherein in the distortion obtaining step, the modification distortion is obtained based on the predetermined prosody parameters generated in the prosody-parameter generation step.

32. (New) A speech signal processing apparatus comprising:

obtaining means for obtaining a plurality of synthesis units from a database based on an input text;

distortion obtaining means for obtaining a respective modification distortion for each of the plurality of synthesis units from a modification distortions table according to prosody information obtained based on the input text, the modification distortions corresponding to the synthesis units in the database, respectively, and being obtained by modifying the synthesis units based on prosody information set in the modification distortions table,

selection means for selecting synthesis units based on the modification distortions obtained by said distortion obtaining means; and

speech synthesis means for performing speech synthesis based on the synthesis units selected by said selection means.

33. (New) A speech signal processing method comprising:

an obtaining step of obtaining a plurality of synthesis units from a database based on an input text;

a distortion obtaining step of obtaining a respective modification distortion for each of the plurality of synthesis units from a modifications distortion table according to prosody information obtained based on the input text, the modification distortions corresponding to the synthesis units in the database, respectively, and being obtained by modifying the synthesis units based on prosody information set in the modification distortions table,

a selection step of selecting synthesis units based on the modification distortions obtained in said distortion obtaining step; and

a speech synthesis step of performing speech synthesis based on the synthesis units selected in said selection step.